

REMARKS

The present invention relates to an adaptive antenna-matching network for wireless communications devices. The Examiner has rejected claim 1 under 35 U.S.C. § 103(a) as being unpatentable over Sroka in view of Wright. Claim 1 requires an adjustable matching network selectively connecting an antenna to a select one of a plurality of transmit power amplifiers corresponding to respective transmit frequency bands for signal transmission. Sroka does not selectively connect the antenna to one of a plurality of antennas as claimed. In fact, Skroka discloses only one amplifier.

To make up for the deficiency of the Skroka patent, the Examiner relies on Wright. The Examiner's attempts to combine Skroka and Wright does not establish a *prima facie* case of obviousness because there is no suggestion or motivation in the art to combine the two references. In contrast to Skroka, Wright compensates for impedance mismatches by controlling the output power of the power amplifier. Indeed, retuning an antenna necessarily negates the need for compensation induced by controlling the power output of the power amplifier. Skroka and Wright represent to entirely different approaches to the problem of impedance mismatch. Skroka attempts to correct the impedance mismatch by means of a impedance matching circuit whereas Wright simply compensates for impedance mismatch by increasing power. There is nothing in Skroka to suggest increasing power responsive to impedance mismatch, and there is nothing in Wright to suggest and impedance matching circuit to correct for impedance mismatch. The Examiner has simply chosen elements of the prior art references using Applicant's own disclosure as a blueprint. This type of hindsight reconstruction does not establish obviousness.

Independent claim 34, 41, 52 and 63 have all been amended to make reference to the phase of a reflection coefficient indicative of the impedance mismatch. Claims 34, 41, 52, and 63 all require that the phase of reflection coefficient be determined, and that

the variable impedance matching circuit be adjusted based on phase of the reflection coefficient. Claims 34, 52 and 63 further recite generating an impedance mismatch signal indicative of the phase of the reflection coefficient. None of the prior art references cited by the Examiner teach or suggest the step of determining the phase of the reflection coefficient, or using the phase information to adjust impedance mismatch. Accordingly, it is believed that claims 34, 41, 52 and 63 are allowable.

If this response does not place the application in condition for allowance, Applicant requests an interview with the Examiner.

Respectfully submitted,

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